



UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/400,365	09/20/99	CHARBEL	F 76461

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LM02/0608

EXAMINER

CHOI, K

ART UNIT	PAPER NUMBER
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2763

DATE MAILED:

06/08/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/400,365

Applicant(s)

CHARBEL ET AL.

Examiner

Kyle J. Choi

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

- 1) ☒ Responsive to communication(s) filed on 20 September 1999.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-50 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-50 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☐ All b) ☐ Some * c) ☐ None of the CERTIFIED copies of the priority documents have been:
1. ☐ received.
2. ☐ received in Application No. (Series Code / Serial Number) _____.
3. ☐ received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. & 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892)
- 16) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 18) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other: _____

DETAILED ACTION

1. The following is an initial Office Action upon examination of the above-identified application on the merits. Claims 1-50 are pending in this application.

Information Disclosure Statement

2. Applicant is reminded that the listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609 A(1) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered. More importantly, if Applicant wants any of the listed references in the specification to be considered by the Office, Applicant is invited to submit a separate IDS with a copy of each of the references.

Specification

3. Applicant is reminded the specification needs to contain reference to any and all continuing applications. In this case,

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the specification needs to make reference to parent U.S. application no. 09/243,870.

4. This application contains an appendix consisting of a computer program listing of more than ten (10) pages. In accordance with 37 CFR 1.96(c), a computer program listing contained on more than ten (10) pages, must be submitted as a "microfiche appendix" conforming to the standards set forth in 37 CFR 1.96(c)(2) and must be appropriately referenced in the specification (see 37 CFR 1.77(a)(6)). Accordingly, applicant is required to cancel the computer program listing appearing in the current appendix to the specification, file a "microfiche appendix" in compliance with 37 CFR 1.96(c), and insert an appropriate reference to the newly added "microfiche appendix" at the beginning of the specification.

Double Patenting

5. A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a

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terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

6. Claims 1-4, 12-15, 23-32, 40-42, 50 are provisionally rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 1-4, 12-15, 23-32, 40-42, 50 of copending Application No. 09/243,870. This is a provisional double patenting rejection since the conflicting claims have not in fact been patented.

7. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

8. Claims 5-11, 16-22, 33-39, 43-49 are provisionally rejected under the judicially created doctrine of double patenting over claims 5-11, 16-22, 33-39, 43-49 of copending Application No. 09/243,870. This is a provisional double patenting rejection since the conflicting claims have not yet been patented.

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The subject matter claimed in the instant application is fully disclosed in the referenced copending application and would be covered by any patent granted on that copending application since the referenced copending application and the instant application are claiming common subject matter, as follows:

The claims of the copending application recites "identifying a general area of a corresponding vessel" while the present application recites the step of "localizing the corresponding vessel in three-dimensional space". Since both of these features are disclosed in both applications, and since localizing a vessel in three-dimensional space constitutes identifying a general area of a corresponding vessel constitutes, it is respectfully submitted that the two applications are claiming common subject matter.

Furthermore, there is no apparent reason why applicant would be prevented from presenting claims corresponding to those of the instant application in the other copending application. See *In re Schneller*, 397 F.2d 350, 158 USPQ 210 (CCPA 1968). See also MPEP § 804.

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Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(f) he did not himself invent the subject matter sought to be patented.

10. Claims 1-50 are rejected under 35 U.S.C. 102(f) because the applicant did not invent the claimed subject matter. In particular, the present application names 5 inventors. The copending parent U.S. application 09/243,870 names 7 inventors. However, claims 1-50 of the present application are virtually the same as that of claims 1-50 in the copending application as further evidenced by the double patenting rejection made above. Hence, it is not understood how two different inventive entities can claim to have invented the same invention. In particular, none of the claims in the present application recite features not disclosed in the copending parent application. Since no new matter has been incorporated into the claims of the present application, it is respectfully submitted that two different

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inventive entities are claiming to have invented the same invention.

11. Claims 1-50 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by **Karplus et al.**

Karplus et al. ("*Simulation and Visualization of the Fluid Flow Field in Aneurysms: A Virtual Environments Methodology*") discloses a method and apparatus for modeling circulation of cerebrovascular systems of specific patients using MRI scans of the patient's brain and simulating the circulation parameters to model aneurysms. The simulator is used to assist and train medical personnel in planning treatments to the patient before actually performing the procedure.

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a),

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the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary.

Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102((e), f) or (g) prior art under 35 U.S.C. 103(a).

14. Claims 1-50 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Foutrakis**.

George Foutrakis is the author of three articles entitled: "*Finite Element Modeling of Intracranial Arterial Blood Flow and Saccular Aneurysm Formation*", "*Efficient Segmentation and 3-D Reconstruction of Complex Vascular Structures from Magnetic Resonance Angiography Imaging Data*", and "*Construction of 3-D Intracranial Arterial Meshes from Magnetic Resonance Angiography*". All three of these articles are really subtopics to the subject of modeling and simulating circulation of blood in the brain to analyze effects of blood flow in aneurysm formation. All three of these articles combined teaches modeling the blood vessels of the brain using MRI images of

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patients and simulating blood flow characteristics in the brain as recited in the above-identified claims.

Conclusion

15. No claims allowed.

16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kyle J. Choi whose telephone number is (703)306-5845. The examiner can normally be reached on Monday-Friday, 8:00am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin J Teska can be reached on (703)305-9704. The fax phone numbers for the organization where this application or proceeding is assigned are (703)308-1396 for regular communications and (703)308-1396 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)305-3900.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

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or faxed to:

(703) 308-9051 (for formal communications intended for
entry)

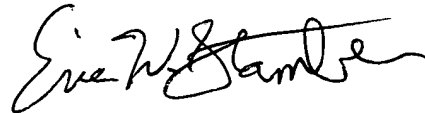
or:

(703) 308-1396 (informal or draft communications labeled
"PROPOSED" or "DRAFT")

Hand delivered responses should be brought to Crystal Park 2,
2121 Crystal Drive, Arlington, VA., 6th floor receptionist.

KJC

June 5, 2000



ERIC W. STAMBER
PRIMARY EXAMINER